

Claim 2 is rejected under 35 U.S.C. §103(a) over Freiburger, Naito, and further in view of Cohen (US 5,572,050). Claims 4-5 are rejected under 35 U.S.C. §103(a) over Freiburger, Naito, and further in view of Shin et al. (US 6,180,457), hereafter “Shin.” These rejections are defective because the cited references, taken alone or in combination, fail to teach each and every feature of the claims as required by 35 U.S.C. §103. Further, the Examiner has failed to establish a *prima facie* case of obviousness in support of the rejections under 35 U.S.C. §103.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

In the Office Action, the Examiner alleges that Freiburger discloses the steps of “forming an insulating layer comprising an Oxide-Nitride-Silicon layered structure,” and “subsequently re-oxidizing the silicon layer of the remaining Oxide-Nitride-Silicon structure so as to form an ONO insulating structure” (Office Action, page 2, last three lines – page 3, line 2). Applicants respectfully disagree with the Examiner’s analysis of Freiburger. In particular, Freiburger does not disclose the steps of “forming an insulating layer comprising an Oxide-Nitride-Silicon layered structure,” and “subsequently re-oxidizing the silicon layer of the remaining Oxide-Nitride-Silicon structure so as to form an ONO insulating structure.” On the contrary, Freiburger discloses an ONO structure 37 comprising a silicon dioxide layer 38, a deposited silicon nitride

layer 39, and a relatively thick oxide film 40 (see, e.g., col. 5, lines 38-47, and FIG. 2B).

Freiberger does not provide a silicon layer that is oxidized to produce a layer of an ONO insulating structure as in the present invention.

In the Office Action, the Examiner also states that Freiberger does not teach “applying a photoresist to the silicon surface as part of a patterning process and stripping the photoresist once a required patterning process has been completed” (Office Action, page 3, first full paragraph). To address this deficiency, the Examiner relies on the teachings of Naito, and alleges that it would have been obvious ... to combine the above teachings to fabricate a semiconductor device to exceed its performance criteria.” Applicants respectfully disagree with the Examiner’s conclusion because Freiberger discloses the use of an Oxide-Nitride-Oxide structure 37 rather than the claimed Oxide-Nitride-Silicon layered structure (i.e., the claimed silicon layer does not exist in Freiberger’s Oxide-Nitride-Oxide structure 37). Therefore, there would be no reason to apply Naito’s patterning process to the non-existent silicon layer of Freiberger. Further, there is absolutely no disclosure in Freiberger or Naito supporting the Examiner’s assertion that the combination of Naito and Freiberger could be used to “fabricate a semiconductor device to exceed its performance criteria.”

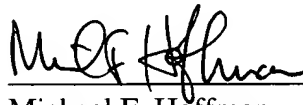
Accordingly, Applicants respectively submit that claims 1-6 are in condition for allowance.

In light of the above, Applicants submit that all claims are in condition for allowance. If the Examiner believes that anything further is necessary to place the application in condition for

allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

Dated: 2/4/03



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